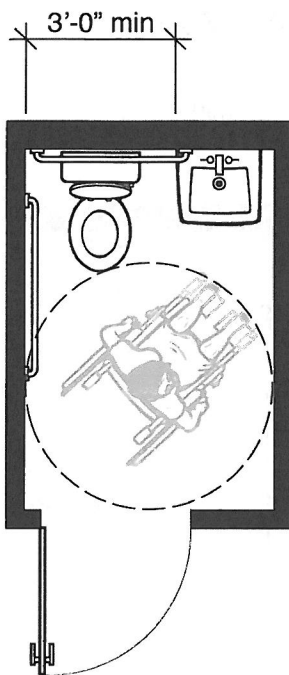


Comparison of Single-User Toilet Room Layouts

1991 Standards

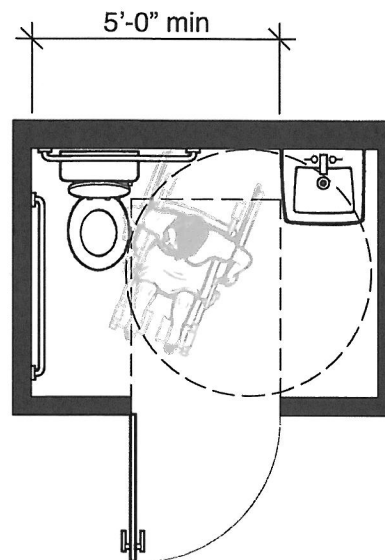


Plan-1A: 1991 Standards Minimum with Out-Swinging Door

5'-0" x 7'-3" • 36.25 Square Feet

This plan shows a typical example of a single-user toilet room that meets the minimum requirements of the 1991 Standards. The size of this space is determined by the minimum width required for the water closet and lavatory between the side walls, the minimum wheelchair turning space, and the space required for the out-swinging door. A lavatory with knee space can overlap the clear floor space required for the water closet provided that at least 36 inches of clearance is maintained between the side wall next to the water closet and the lavatory (see section 4.16.2 and Fig. 28 of the 1991 Standards). A wheelchair turning space meeting section 4.2.3 of the 1991 Standards must be provided. The size of this room requires that the entry door swing out. The room would be larger if the door were in-swinging.

2010 Standards



Plan-1B: 2010 Standards Minimum with Out-Swinging Door

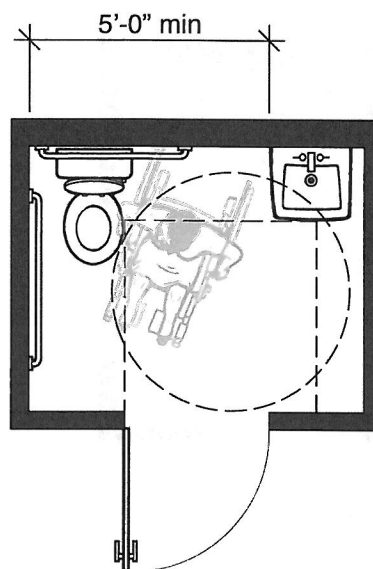
7'-0" x 5'-0" • 35.00 Square Feet

This plan shows a typical example of a single-user toilet room that meets the minimum requirements of the 2010 Standards. Features include: five-foot minimum width between the side wall of the water closet and the lavatory; 60-inch minimum circular wheelchair turning space; and 36-inch by 48-inch clear maneuvering space for the out-swinging entry door. Section 604.3.1 of the 2010 Standards requires a floor clearance at a water closet that is a minimum of 60 inches wide by 56 inches deep regardless of approach. Section 604.3.2 prohibits any other plumbing fixtures from being located in this clear space, except in residential dwelling units. The 2010 Standards, at section 304.3, allows the turning space to extend into toe and knee space provided beneath fixtures and other elements. Required maneuvering space for the entry door (inside the room) must be clear of all fixtures. If the door had both a closer and latch, section 404.2.4.1 and Figure 404.2.4.1(c) require additional space on the latch side.

This layout is three point five percent (3.5%) smaller than the accompanying Plan-1A: 1991 Standards Minimum with Out-Swinging Door example.

Comparison of Single-User Toilet Room Layouts

2010 Standards



**Plan-1C: 2010 Standards Minimum with
Out-Swinging Door**
(entry door has both closer and latch)

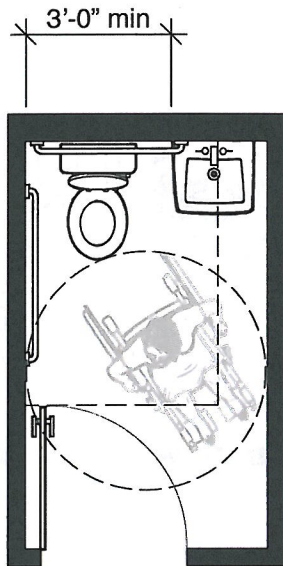
7'-0" x 5'-6" • 38.50 Square Feet

This plan shows the same typical features of a single-user toilet room that meets the minimum requirements of the 2010 Standards as Plan-1B does except the entry door has both a closer and latch. Because the door has both a closer and latch, a minimum additional foot of maneuvering space is required on the latch side (see section 404.2.4.1 and Figure 404.2.4.1(c) of the 2010 Standards).

This layout is six point two percent (6.2%) larger than the accompanying Plan-1A: 1991 Standards Minimum with Out-Swinging Door example.

Comparison of Single-User Toilet Room Layouts

1991 Standards

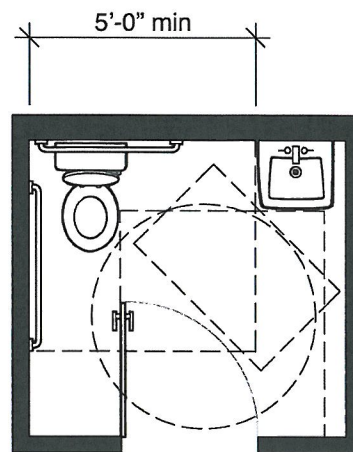


**Plan-2A: 1991 Standards Minimum
with In-Swinging Door**

5'-0" x 8'-6" • 42.50 Square Feet

This plan shows a typical example of a single-user toilet room that meets the minimum requirements of the 1991 Standards. Depending on the width of the hallway and other circulation issues, it can be preferable to swing the entry door into the toilet room. Businesses and public entities typically prefer to have an in-swinging door. The in-swinging door increases overall room size because it cannot swing over the required clear floor space at any accessible fixture, (see section 4.22.2 of the 1991 Standards). This increases the room depth from Plan-1A. The door is permitted to swing over the required turning space shown as a 60-inch circle.

2010 Standards



**Plan-2B: 2010 Standards Minimum
with In-Swinging Door**

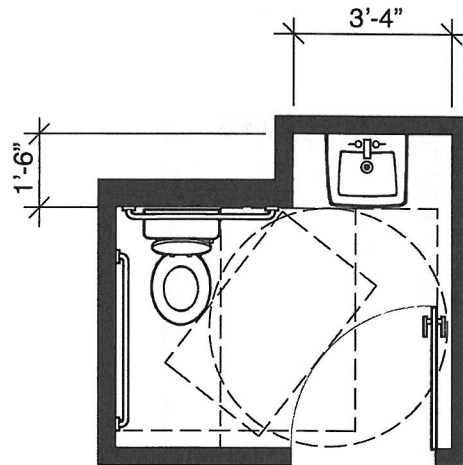
7'-0" x 6'-6" • 45.50 Square Feet

This plan shows a typical example of a single-user toilet room that meets the minimum requirements of the 2010 Standards when the entry door swings into the room. In the 2010 Standards an exception allows the entry door to swing over the clear floor spaces and clearances required at the fixtures if a clear floor space complying with section 305.3 (minimum 30 inches by 48 inches) is provided outside the arc of the door swing, section 603.3.3 exception 2. The required maneuvering space for the door, section 404.2.4.1 and Figure 404.2.4.1(a), also is a factor in room size. This clear space cannot be obstructed by the plumbing fixtures. Note that this layout provides more space for turning when the door is closed than Plan-1B.

This layout is seven percent (7%) larger than the accompanying Plan-2A: 1991 Standards Minimum with In-Swinging Door example.

Comparison of Single-User Toilet Room Layouts

2010 Standards



Plan-2C: 2010 Standards Minimum with In-Swinging Door

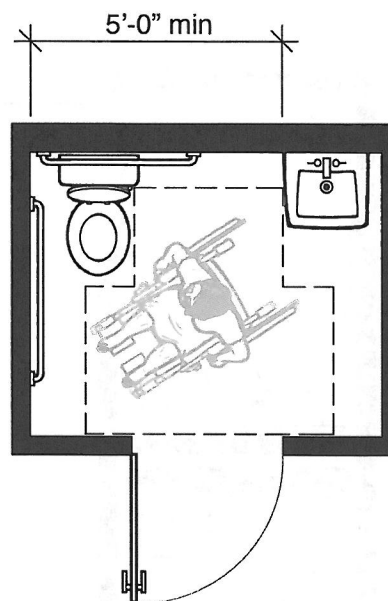
7'-0" x 6'-6" • 40.00 Square Feet
(plumbing chase not included)

This plan shows the same typical features of a single-user toilet room that meets the minimum requirements of the 2010 Standards as Plan-2B when the entry door swings into the room. Note that this layout also provides more space for turning when the door is closed than Plan-1B.

This layout is six point two five percent (6.25%) smaller than the accompanying Plan-2A: 1991 Standards Minimum with In-Swinging Door example.

Comparison of Single-User Toilet Room Layouts

1991 Standards and 2010 Standards



Plan-3: Meets Both 1991 Standards and 2010 Standards

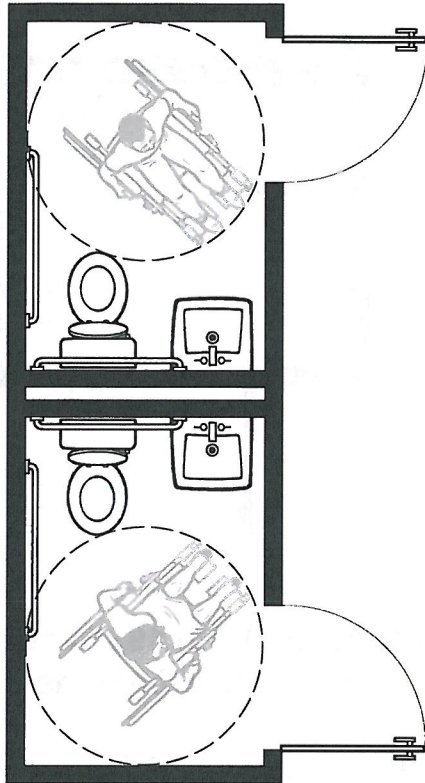
7'-0" x 5'-9" • 40.25 Square Feet

This plan shows an example of a single-user toilet room that meets the minimum requirements of both the 1991 Standards and 2010 Standards. A T-shaped turning space has been used (see Fig. 3(a) of the 1991 Standards and Figure 304.3.2 of the 2010 Standards) to maintain a compact room size. An out-swinging door also minimizes the overall layout depth and cannot swing over the required clear floor space or clearance at any accessible plumbing fixture.

This layout is eleven percent (11%) larger than the Plan-1A: 1991 Standards Minimum with Out-Swinging Door example shown at the beginning of these plan comparisons.

Comparison of Single-User Toilet Room “Pairs” With Fixtures Side-by-Side

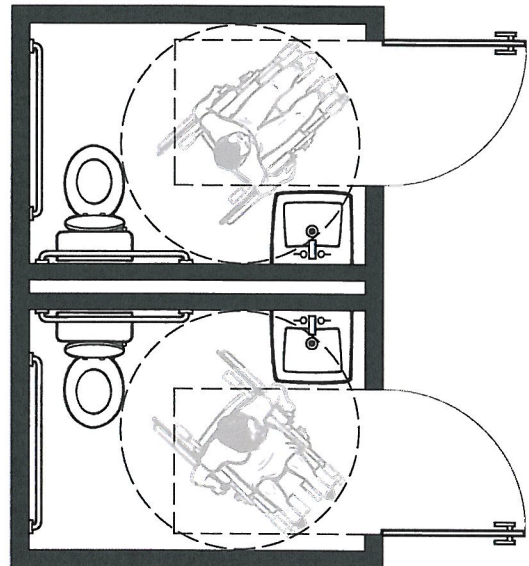
1991 Standards



Plan-1A Pair: 1991 Standards with Out-Swinging Doors

**Two 5'-0" x 7'-3" Rooms –
72.50 Square Feet Total**

2010 Standards



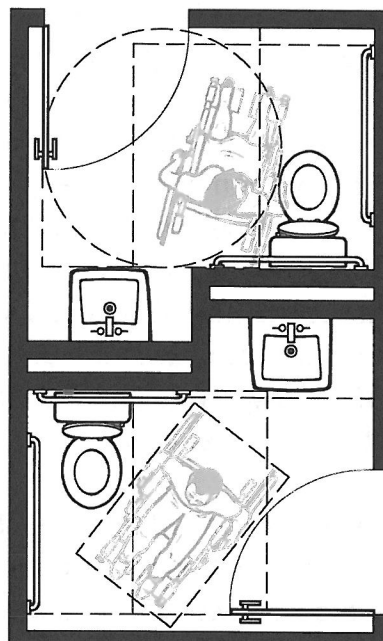
Plan-1B Pair: 2010 Standards with Out-Swinging Doors

**Two 7'-0" x 5'-0" Rooms –
70.00 Square Feet Total**

These plans show men's/women's room configurations using Plans 1A and 1B.

Comparison of Single-User Toilet Room “Pairs” With Fixtures Side-by-Side

2010 Standards



Plan-2C Pair: 2010 Standards with In-Swinging Doors

**Two 7'-2" x 6'-6" Rooms -
82.00 Square Feet Total**

This plan shows a men's/women's room
configuration using Plan 2C.

Toilet Paper Dispensers. The provisions for toilet paper dispensers at section 604.7 of the 2010 Standards require the dispenser to be located seven inches minimum and nine inches maximum in front of the water closet measured to the centerline of the dispenser. The paper outlet of the dispenser must be located 15 inches minimum and 48 inches maximum above the finish floor. In the 1991 Standards the location of the toilet paper dispenser is determined by the centerline and forward edge of the dispenser. In the 2010 Standards the mounting location of the toilet paper dispenser is determined by the centerline of the dispenser and the location of the outlet for the toilet paper.

One commenter discussed the difficulty of using large roll toilet paper dispensers and dispensers with two standard size rolls stacked on top of each other. The size of the large dispensers can block access to the grab bar and the outlet for the toilet paper can be too low or too high to be usable. Some dispensers also control the delivery of the toilet paper which can make it impossible to get the toilet paper. Toilet paper dispensers that control delivery or do not allow continuous paper flow are not permitted by the 1991 Standards or the 2010 Standards. Also, many of the large roll toilet paper dispensers do not comply with the 2010 Standards since their large size does not allow them to be mounted 12 inches above or 1 ½ inches below the side grab bar as required by section 609.3.

Shower Spray Controls. In accessible bathtubs and shower compartments, sections 607.6 and 608.6 of the 2010 Standards require shower spray controls to have an on/off control and to deliver water that is 120°F (49°C) maximum. Neither feature was required by the 1991 Standards, but may be required by plumbing codes. Delivering water that is no hotter than 120°F (49°C) will require controlling the maximum temperature at each accessible shower spray unit.

Shower Compartments. The 1991 Standards at sections 4.21 and 9.1.2 and the 2010 Standards at section 608 contain technical requirements for transfer-type and roll-in shower compartments. The 2010 Standards provide more flexibility than the 1991 Standards as follows:

- Transfer-type showers are exactly 36 inches wide by 36 inches long.
- The 1991 Standards and the 2010 Standards permit a ½-inch maximum curb in transfer-type showers. The 2010 Standards add a new exception that permits a 2-inch maximum curb in transfer-type showers in alterations to existing facilities, where recessing the compartment to achieve a ½-inch curb will disturb the structural reinforcement of the floor slab.
- Roll-in showers are 30 inches wide minimum by 60 inches long minimum. Alternate roll-in showers are 36 inches wide by 60 inches long minimum, and have a 36-inch minimum wide opening on the